



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER OF PATENTS AND TRADEMARKS
Washington, D.C. 20231
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/403,487	10/22/1999	MASAYUKI OKAMOTO	1248-467P	7363

2292 7590 09/06/2002

BIRCH STEWART KOLASCH & BIRCH
PO BOX 747
FALLS CHURCH, VA 22040-0747

EXAMINER

CHUNG, DAVID Y

ART UNIT PAPER NUMBER

2871

DATE MAILED: 09/06/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/403,487

Applicant(s)

OKAMOTO ET AL.

Examiner

David Chung

Art Unit

2871

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 21 March 2002.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-22 is/are pending in the application.
- 4a) Of the above claim(s) 4,5 and 8-22 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-3,6 and 7 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 2) ☒ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ 6) ☐ Other: _____

DETAILED ACTION

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claim 1 rejected under 35 U.S.C. 102(b) as being clearly anticipated by Sonehara et al. (U.S. 5,361,151). Sonehara et al. discloses a reflection-type liquid crystal device having a twisted nematic liquid crystal layer and a circularly polarizing element on the incident side of the display. Note in figure 10, the twisted nematic liquid crystal layer 1004, substrates 1001 and 1003, reflector 1002, transparent electrode 1005, and circularly polarizing plate 1006 comprising linear polarizer 1007 and phase plate 1008. In this embodiment, phase plate 1008 is a quarter-wave plate. See column 6, lines 17 – 43. In the present invention, $\Delta n d = 0.2$ and the twist angle of the liquid crystal layer is approximately 60 degrees.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the

Art Unit: ***

invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 2 and 3 rejected under 35 U.S.C. 103(a) as being unpatentable over Sonehara et al. (U.S. 5,361,151) in further view of Itoh et al. (U.S. 6,362,862). Although Sonehara et al. does not disclose a circular polarizing means comprising a linear polarizer and two compensator plates, Itoh et al. discloses using two compensator plates whose composite retardation value coincides with the retardation value of a quarter-wave plate. See column 8, lines 10 – 21. See also figures 8 and 10. Therefore, it would have been obvious to one of ordinary skill in the art that using two separate compensators was a functionally equivalent alternative to using a quarter-wave plate in order to produce circularly polarized light. Furthermore, the exact retardation value and angle of disposition of each compensator are result effective variables, whose determination would have been obvious to one of ordinary skill in the art.

Claims 6 and 7 rejected under 35 U.S.C. 103(a) as being unpatentable over Sonehara et al. (U.S. 5,361,151) in further view of Itoh et al. (U.S. 6,362,862). It was well known and obvious within the art to use a compensator to cancel a residual phase difference of the liquid crystal layer. Compensators were conventionally used to correct for a birefringence of the liquid crystal layer.

Response to Arguments

In response to the objection to restriction requirement, applicant is directed to 37 CFR 1.499 which states: If the examiner finds that a national stage application lacks

Art Unit: ***


unity of invention under § 1.475, the examiner may in an Office action require the applicant in the response to that action to elect the invention to which the claims shall be restricted. Such requirement may be made before any action on the merits but may be made at any time before the final action at the discretion of the examiner. Review of any such requirement is provided under §§ 1.143 and 1.144.

Applicant's arguments filed March 21, 2002 regarding the examiner's restriction requirement have been fully considered but they are not persuasive. As has been shown in this office action, the base claim is fully anticipated by the disclosure of Sonehara et al. Because of this, the groups indicated in the restriction requirement lack common special technical features. Therefore, the claims are not drawn to a single inventive concept and restriction is appropriate under 37 CFR 1.475 and PCT Rule 13.1.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to David Chung whose telephone number is (703) 306-0155. The examiner can normally be reached on Monday-Friday from 8:30 am to 5:00 pm.

David Chung
GAU 2871
08/28/02



Kenneth Parker
Primary Examiner
GAU 2871